

REMARKS

In the Office Action dated July 28, 2004, Claims 34-51 are rejected under 35 U.S.C. 112 as failing to comply with the written description requirement.

Claim 34 rejection for not finding proper support for the features of a driver circuit coupled to the three beam directors

Claim 34 has been amended to change the term “driver circuit” to “control electronics circuit”. This amendment does not limit the claim to be narrower than its previous wording would define, but rather is made to make the claim correspond more closely to supporting Figure 6 and corresponding Specification passages.

Figure 6 indicates an exemplary display 70 that includes control electronics 74 to “provide electrical signals that control operation of the display 70 in response to to an image signal V_{IM} from an image source...” (p. 11, l. 19-21) The display 70 of Figure 6 further includes a scanning assembly 82 that “includes a periodically scanning mirror or mirrors.” (p.12, l. 6-7) One skilled in the art would recognize that control electronics 74 can thus provide signals to the periodically scanning mirror or mirrors of scanning assembly 82.

Additionally, Figure 8 indicates an exemplary scanning assembly 82 having three exemplary beam directors. These are referred to as horizontal scanner 56, vertical scanner 58, and correction mirror 100.

Figure 9 indicates drive electronics 218 coupled to two separate beam directors 201 and 220. It would be understood by one of skill in the art that the drive electronics 218 of Figure 9 could be coupled to a third beam director as shown in Figure 8.

Additional portions of the Specification and Figures and/or additional portions of the Specification and Figures of U.S. Patents incorporated by reference provide further support for coupling a driver circuit (control electronics) to three beam directors.

Claim 34 rejection for not finding proper support for the features of a driver circuit providing a signal to the third beam director with a primary frequency [and] at least one higher order harmonic frequency

Figure 18 “shows correction of the raster signal with a sinusoidal motion of the correction mirror”. (p. 25, l. 1-2) As noted further down in the same paragraph, “Another approach to reducing the error is to add one or more higher order harmonics to the scanner drive signal so that the scanning pattern of the resonant correction scanner 130 shifts from a sinusoidal scan closer to a sawtooth wave.” (p. 25, l. 8-11)

Constituting a signal from a primary frequency and at least one higher order harmonic is well known to those of skill in the art. For example, ‘Eric W. Weisstein. “Fourier Series.” From MathWorld – A Wolfram Web Resource. <http://mathworld.wolfram.com/FourierSeries.html>’ illustrates the construction of a number of periodic functions from superposed sine and cosine functions (including functions of higher order than the primary frequency). This site includes a list of references dating back at least as far as 1959. Similarly, the Internet URL <http://www.physics.hku.hk/~phys2325/notes/chap7.doc> comprises notes for an undergraduate level physics course (2325) that shows the superposition of sine terms to form a sawtooth wave (page 4).

The Applicants respectfully submit that it has been shown that Claim 34 (as amended) meets the requirements of 35 U.S.C. §112 (1st para.) for written description. Insofar as the examiner has indicated that dependent claims 35-46 would be allowable if Claim 34 were rewritten or amended to overcome the rejection under 35 U.S.C. §112 (1st para.), the Applicants believe Claims 34-46 have been shown to be in condition for allowance.

Claim 47 rejection for not finding proper support for the method step of generating a third period[ic] signal comprising a primary frequency and at least one odd harmonic for driving a scanner

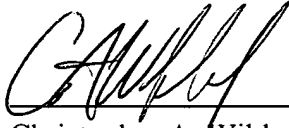
The Applicants respectfully suggest that the method of Claim 47 is inherent in the apparatus of Claim 34. Furthermore, the cited passage, “Another approach to reducing the error is to add one or more higher order harmonics to the scanner drive signal so that the scanning pattern of the resonant correction scanner 130 shifts from a sinusoidal scan closer to a sawtooth wave,” (p. 25, l. 8-11) is itself an action corresponding to the method of generating a third periodic signal comprising a primary frequency and at least one harmonic for driving a scanner. That the at least one harmonic is odd is a matter of choice that determines the shape of the periodic signal. It is well understood by those skilled in the art that odd harmonics of sine waves may be used to generate an approximation of various waveforms including a sawtooth wave.

The Applicants respectfully submit that it has been shown that Claim 47 meets the requirements of 35 U.S.C. §112 (1st para.) for written description. Insofar as the examiner has indicated that dependent claims 48-51 would be allowable if Claim 47 were rewritten or amended to overcome the rejection under 35 U.S.C. §112 (1st para.), the Applicants believe Claims 47-51 have been shown to be in condition for allowance.

The Examiner is invited to contact Mr. Christopher A. Wiklof at (425) 415-6641 with any issues that may advance prosecution of the application on the merits.

Respectfully submitted,

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Transmittal and Fee Calculation Cover Sheet (+ copy)

Petition for Three-Month Extension of Time (+ 2 copies)

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